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09/753,236	12/29/2000	Heikki Suonsivu	540-009.2	8481

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WARE FRESSOLA VAN DER SLUYS &  
ADOLPHSON, LLP  
BRADFORD GREEN BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER
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KADING, JOSHUA A

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 04/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/753,236

Applicant(s)

SUONSIVU ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 9, 10, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6, 8, and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claim 2 is objected to because of the following informalities:

Claim 2, line 10 states "a response". So as not to confuse the previous disclosure  
5 of "a response" on line 9, line 10 should be changed to --the response--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
10 obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.  
15

Claims 1, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable  
over Jensen et al. (U.S. Patent 6,185,612 B1) in view of applicant's admitted prior art  
20 (AAPA).

Regarding claim 1, Jensen discloses "a method for distributing configuration  
information in an xDSL network that comprises network elements on certain hierarchical  
levels and a network managing station, the method comprising the steps of:  
25 transmitting a request for configuration information from a first network  
element...to a second network element (figure 5, element 502 whereby sending a

Art Unit: 2661

request, there is inherently a first network element (the transmitter) and a second network element (the receiver); col. 9, lines 34-36 where topology information is the configuration information)...

deciding, at the second network element...whether it is appropriate to read the  
5 configuration information requested in the request for configuration information from a configuration memory of the second network element (figure 5, element 506 where authenticating the request is a way of determining whether it is appropriate to read configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it should be noted that topology information is known to  
10 be stored in a memory and thus must be read from a memory such as in element 404 of figure 4)

in case it is decided to be appropriate, reading the configuration information requested in the request for configuration information from a configuration memory of the second network element and transmitting the configuration information that was  
15 read from the configuration memory of the second network element to the first network element (figure 5, element 506 where authenticating the request is a way of determining whether it is appropriate to read configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it should be noted that topology information is known to be stored in a memory and thus must be read from  
20 memory, element 500 where informing the transmitter of the request of the configuration information)."

Jensen lacks "...the first network element located on a first hierarchical level...the second network element located on a second hierarchical level, which second hierarchical level is above the first hierarchical level in the xDSL network but which second network element is other than the network managing station..."

5           However, AAPA discloses "...the first network element located on a first hierarchical level (figure 1, element 101 sends the request to element 111)...the second network element located on a second hierarchical level (figure 1, element 111), which second hierarchical level is above the first hierarchical level in the xDSL network but which second network element is other than the network managing station (figure 1  
10 where element 111 is clearly above element 101 in the hierarchy and is not the network managing station)..."

          It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the method for the purpose of selecting an appropriate path for transmission (Jensen, col. 9, lines 59-61). The  
15 motivation being that the topology can reveal a shortest distance path or a path that has no failures in it.

          Regarding claim 5, Jensen and AAPA disclose the method of claim 1. Jensen further discloses what AAPA lacks, that is "as a response to receiving a request for  
20 configuration information from the first network element, applying a certain predefined rule at the second network element to decide, whether to forward the request from the second network element to a third network element located on a third hierarchical level,

Art Unit: 2661

which third hierarchical level is above the second hierarchical level in the xDSL network, or whether to read the configuration information requested in the request for configuration information from a configuration memory of the second network element without forwarding the request from the second network element to the third network element (figure 5, elements 502, 506, 512; col. 9, lines 59-67 and col. 10, lines 1-8; it is noted that the hierarchical level is consistent with that of AAPA as in claim 1 and figure 1 of AAPA).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchical forwarding of the request with the method of claim 1 for the same reasons and motivation as in claim 1.

10

Regarding claim 7, Jensen discloses “a method for achieving configuration information into a network element of an xDSL network that comprises network elements on certain hierarchical levels; the method comprising the steps of:

transmitting a request for configuration information from a first network element... to a second network element (figure 5, element 502 whereby sending a request, there is inherently a first network element (the transmitter) and a second network element (the receiver); col. 9, lines 34-36 where topology information is the configuration information)...

deciding, at the second network element... whether it is appropriate to read the configuration information requested in the request for configuration information from a configuration memory of the second network element (figure 5, element 506 where authenticating the request is a way of determining whether it is appropriate to read

Art Unit: 2661

configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it should be noted that topology information is known to be stored in a memory and thus must be read from a memory as in element 404 of figure 4)

5           in case it is decided to be appropriate, reading the configuration information requested in the request for configuration information from a configuration memory of the second network element (figure 5, element 506 where authenticating the request is a way of determining whether it is appropriate to read configuration information, i.e. if it is authenticated the information can be read, if it is not the information is not read; also it  
10       should be noted that topology information is known to be stored in a memory and thus must be read from a memory as in element 404 of figure 4)."

Jensen lacks "...the first network element located on a first hierarchical level...the second network element located on a second hierarchical level, which second hierarchical level is above the first hierarchical level in the xDSL network but  
15       which second network element is other than the network managing station..."

However, AAPA discloses "...the first network element located on a first hierarchical level (figure 1, element 101 sends the request to element 111)...the second network element located on a second hierarchical level (figure 1, element 111), which second hierarchical level is above the first hierarchical level in the xDSL network but  
20       which second network element is other than the network managing station (figure 1 where element 111 is clearly above element 101 in the hierarchy and is not the network managing station)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the method for the purpose of selecting an appropriate path for transmission (Jensen, col. 9, lines 59-61). The motivation being that the topology can reveal a shortest distance path or a path that has  
5 no failures in it.

Claims 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galaand et al. (U.S. Patent 5,495,479). in view of applicant's admitted prior art (AAPA).

10

Regarding claim 9, Galaand discloses "a method for effecting changes into configuration information in an xDSL network that comprises network elements on certain hierarchical levels and a network managing station, the method comprising the steps of:

15

at a certain first network element...receiving a command for changing a piece of configuration information that pertains to a second network element (col. 15, lines 7-12 where the updating of the topology (configuration) in every node means that in order for the change to occur, a first node must send the change information to the other nodes, which includes the second node)...and

20

storing said piece of configuration information at a configuration memory of the first network element in a form that results from executing said received command (col.



15, lines 7-12 where the database is the memory and since these databases are updated, the configuration information is updated)."

Galaand lacks "the first network element is other than the network managing station and is located on a certain first hierarchical level...and the second network  
5 element is located on a certain second hierarchical level, which second hierarchical level is below the first hierarchical level in the xDSL network."

However, AAPA discloses "the first network element is other than the network managing station and is located on a certain first hierarchical level (figure 1, element 101 sends the request to element 111)...and the second network element is located on  
10 a certain second hierarchical level, which second hierarchical level is below the first hierarchical level in the xDSL network (figure 1 where element 111 is clearly above element 101 in the hierarchy and is not the network managing station)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the method for the purpose of  
15 selecting an appropriate path for transmission (Galaand, col. 15, lines 7-12). The motivation being that the topology can reveal a shortest distance path or a path that has no failures in it.

Regarding claim 10, Galaand and AAPA disclose the method of claim 9. Galaand  
20 further discloses what AAPA lacks, that is "transmitting, a copy of the stored configuration information from said first network element towards the second network element as a command to start using the transmitted configuration information (col. 15,

lines 7-12 where the updated configuration is sent to every node) and transmitting a copy of the stored configuration information from said first network element towards the network managing station as a report of changed configuration information (col. 15, lines 7-12 where the updated configuration is sent to every node, this includes the managing station as per figure 1 of AAPA).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the transmitting a copy of the configuration change to the second network element and the managing station with the method of claim 9 for the same reasons and motivation as in claim 9.

10           Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant’s admitted prior art (AAPA) in view of Galaand et al.

          Regarding claim 12, AAPA discloses “a network element of an xDSL network, which network element is other than a network managing station and is arranged to communicate with other xDSL network elements that are located on lower hierarchical levels in the xDSL network and with at least one xDSL network element that is located on a higher hierarchical level in the xDSL network (figure 1, element 121 is the network element, and element 131 is the managing station)...”

          AAPA lacks “...and which network element is arranged to store configuration information pertaining to the network element; wherein the improvement lies in that the network element is also arranged to store configuration information pertaining to at least one xDSL network element that is located on a lower hierarchical level in the xDSL network.”

However, Galaand discloses "...and which network element is arranged to store configuration information pertaining to the network element; wherein the improvement lies in that the network element is also arranged to store configuration information pertaining to at least one xDSL network element that is located on a lower hierarchical  
5 level in the xDSL network (col. 15, lines 7-12 where the Topology Database is the memory used to store the configuration information in each node, which includes lower level network elements)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the network for the purpose of  
10 selecting an appropriate path for transmission (Galaand, col. 15, lines 7-12). The motivation being that the topology can reveal a shortest distance path or a path that has no failures in it.

Regarding claim 13, AAPA discloses "an xDSL network comprising network  
15 elements on certain hierarchical levels and a network managing station (figure 1, where there are clearly xDSL elements on different levels and element 131 is the managing station)..."

AAPA lacks "...wherein the improvement lies in that a number of other network elements than the network managing station are arranged to store configuration  
20 information pertaining to network elements that are located on lower hierarchical levels in the xDSL network than the network element at which the configuration information is stored."

However, Galaand discloses "...wherein the improvement lies in that a number of other network elements than the network managing station are arranged to store configuration information pertaining to network elements that are located on lower hierarchical levels in the xDSL network than the network element at which the configuration information is stored (col. 15, lines 7-12 where the Topology Database is the memory used to store the configuration information in each node, which includes lower level network elements)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the hierarchy with the rest of the network for the purpose of selecting an appropriate path for transmission (Galaand, col. 15, lines 7-12). The motivation being that the topology can reveal a shortest distance path or a path that has no failures in it.

### ***Allowable Subject Matter***

Claims 2-4, 6, 8, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lu (U.S. Patent 5,910,970) shows an xDSL system that makes use of ACKs, NACKs, and Rejection signals to accept or reject configuration data. Bell

Art Unit: 2661

(U.S. Patent 6,678,721 B1) uses an ACK to configure nodes in a DSL network.

Weismann (U.S. Patent 6,665,305 B1) discusses identifying circuit paths in a subscriber loop network.

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number  
10 for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.  
15 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



20 JK  
March 31, 2004



**KENNETH VANDERPUYE**  
**PRIMARY EXAMINER**

Joshua Kading  
Examiner  
Art Unit 2661